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42. The method according to claim 30, wherein said at least one sugar is dihydroxyacetone.

B7  
46. The method according to claim 30, wherein said at least one sugar is xylobiose.--

**REMARKS**

**I. Status of the Claims**

Claims 1-56 are now pending in this application. Claims 9, 12, 13, 16, 18, 38, 41, 42, and 46 have been amended to correct minor typographical errors which resulted in incorrect dependencies of these claims. These amendments in no way narrow the scope of these claims. Support for these amendments can be found in the claims and the specification as filed. Accordingly, no new matter has been added by these amendments.

**II. Information Disclosure Statement**

Applicants bring the PTO 1449 Form concurrently submitted herewith to the Examiner's attention. As per the Examiner's request, this form includes a list of all abstracts submitted in the Information Disclosure Statement filed February 21, 2001, excluding those previously individually listed on the PTO Form 1449 filed February 21, 2001.

III. Rejections under 35 U.S.C. § 112

Claims 9, 16, 38, 41, 42, 46, 51, and 52 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants have amended claims 9, 12, 13, 16, 18, 38, 41, 42, and 46 to correct their dependencies, thus rendering the rejections of claims 9, 16, 38, 41, 42, and 46 moot. Applicants thank the Examiner for pointing out these inadvertent typographical errors. Accordingly, Applicants respectfully assert that the rejection of claims 9, 16, 38, 41, 42, and 46 be withdrawn.

With respect to claims 51 and 52, however, Applicants assert that there is sufficient antecedent basis for the phrases "said at least one sugar" and "said at least one additional sugar," respectively. Specifically, claim 51 is dependent on independent claim 30 which recites "[a] method of protecting a keratinous fiber from extrinsic damage or repairing a keratinous fiber following extrinsic damage comprising applying to said keratinous fiber a composition comprising at least one sugar chosen from C3 to C5 monosaccharides and derivatives thereof; and heating said keratinous fiber, wherein said at least one sugar is present in an amount effective to protect said keratinous fiber or repair said keratinous fiber, and further wherein said composition is applied prior to said heating or during said heating" (emphasis added). Further, claim 52 is dependent on dependent claim 46 which recites "[t]he method according to claim 30, wherein said composition further comprises at least one additional sugar, said at least one additional sugar being

different from said C3 to C5 monosaccharides and derivatives thereof."

Accordingly, Applicants respectfully assert that the rejection of claims 51 and 52 are in error and request that these be withdrawn.

**IV. Rejection under 35 U.S.C. § 102(b)**

Claims 1-4 and 19-29 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,900,545 ("*Wisotzki*") for the reasons set forth on pages 3-4 of the present Office Action. Applicants respectfully traverse this rejection.

A rejection under § 102 is only proper when the claimed subject matter is identically described or disclosed in the prior art. *In re Arkley*, 455 F.2d 586, 587 (CCPA 1972); *see also* M.P.E.P. § 706.02(a) ("For anticipation under 35 U.S.C. § 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly.").

The Examiner asserts that "*Wisotzki* discloses a hair care composition useful in protecting hair (repairing split ends) comprising a sugars...." See page 3 of the present Office Action. Applicants disagree with this characterization of the teachings of *Wisotzki* and respectfully traverse this rejection.

In contrast to the Examiner's assertion, *Wisotzki* discloses "[a] composition for the regeneration of hair split-ends." See Abstract. Nowhere in the document does *Wisotzki* teach or suggest "protecting hair" with the compositions disclosed therein. Accordingly, *Wisotzki* does not teach every aspect of claims 1-4 and 19-27

which are drawn to "[a] method of protecting a keratinous fiber from extrinsic damage comprising applying to said keratinous fiber a composition comprising at least one sugar chosen from C3 to C5 monosaccharides and derivatives thereof, wherein said at least one sugar is present in an amount effective to protect said keratinous fiber" (emphasis added).

Similarly, *Wisotzki* does not teach every aspect of claims 28 and 29 which are drawn to "[a] method of repairing a keratinous fiber following extrinsic damage comprising applying to said damaged keratinous fiber a composition comprising at least one sugar chosen from C3 to C5 monosaccharides and derivatives thereof, wherein said at least one sugar is present in an amount effective to repair said keratinous fiber."

According to the present invention, "repairing" means that the damaged keratinous fibers demonstrated an increase in  $\alpha$ -structure and/or tensile strength following treatment of the damaged keratinous fibers with the compositions of the invention." See pages 5-6 of the specification of the present application. In contrast, *Wisotzki* discloses "[a] composition for the regeneration of hair split-ends." See Abstract. Testing of the hair-regenerating effect in *Wisotzki* involves "a sample of 100 hairs all of which had been split by mechanical and electrostatic pretreatment." See col. 5, lines 63-65. After treatment, "[t]he visually discernible split ends were then determined by counting, a lower number being preferable." See col. 5, line 68- col. 6, line 2.

Since *Wisotzki* teaches the reduction of the number of visually discernible split ends and does not teach or suggest an increase in  $\alpha$ -structure and/or tensile strength, *Wisotzki* does not anticipate claims 28 or 29.

Accordingly, for at least the foregoing reasons, Applicants assert that *Wisotzki* does not identically describe the subject matter of claims 1-4 and 19-29 of the present invention, and thus, Applicants respectfully request that the rejection under 35 U.S.C. § 102 be withdrawn.

**V. Rejections under 35 U.S.C. § 103(a)**

Claims 1-56 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Wisotzki*, U.S. Patent No. 5,660,838 ("*Koga*"), U.S. Patent No. 5,641,477 ("*Syed*"), and U.S. Patent No. 5,866,111 ("*Felardos*") for the reasons set forth on pages 4 - 5 of the present Office Action. Applicants respectfully traverse this rejection.

One criteria that the Examiner must demonstrate to establish a *prima facie* case of obviousness is that there is some suggestion or motivation, either in the cited references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or combine reference teachings. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. See *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Importantly, evidence of a teaching, suggestion, or motivation to combine

must be "clear and particular." See *In re Dembiczak*, 175 F.3d 994, 999 (Fed Cir. 1999). In the present case, the Examiner has failed to demonstrate the requisite suggestion or motivation to make the proposed combination.

The Examiner asserts that "*Wisotzki* discloses a hair care composition useful in protecting hair (repairing split ends) comprising a sugars...." See page 4 of the present Office Action. However, as discussed above with respect to the rejection under 35 U.S.C. § 102 over *Wisotzki*, *Wisotzki* does not teach or suggest a method of protecting a keratinous fiber nor a method repairing a keratinous fiber according to the present invention. Further, *Wisotzki* does not teach the limitation of claims 30-65, specifically heating the keratinous fiber, wherein the composition comprising at least one sugar chosen from C3 to C5 monosaccharides and derivatives thereof is applied prior to or during the heating.

The Examiner relies on *Syed*, *Koga*, and *Felardos* to cure the deficiencies of *Wisotzki*. The Examiner concludes that "[i]t would have been obvious to use said sugars in hair care compositions to protect hair, since these sugars are known to provide beneficial properties to hair." Applicants respectfully disagree.

Each of the cited references is drawn to a very different invention for a very different purpose from any of the others: *Wisotzki* is drawn to "[a] composition for the regeneration of hair split-ends" (see Abstract); *Syed* is drawn to "a lanthionizing composition that comprises hydrogenated starch hydrolysate" (see Abstract); *Koga* is drawn to "[x]ylobiose-containing skin preparations for external use" (see Abstract); while *Felardos* is drawn to "new cosmetic compositions, in particular

mascaras" (see Abstract). Thus, the Examiner's bare conclusion that "[i]t would have been obvious to use said sugars in hair care compositions to protect hair, since these sugars are known to provide beneficial properties to hair" does not demonstrate any suggestion or motivation for the proposed modification, let alone the requisite "clear and particular" evidence of such a suggestion or motivation.

Accordingly, for at least this reason, Applicants respectfully request withdrawal of this § 103(a) rejection.

#### **VI. Conclusion**

In view of the foregoing amendments and remarks, Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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